

U.S. Patent Appln. No. 10/660,067
Amendment
Response to Office Action of Dec. 13, 2004

Docket No. 7001-72

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-63. (Cancelled)

64. A pallet, comprising:

at least one top support member adapted to support cargo, wherein said top support member has a top surface and a bottom surface;

at least one bottom support member having a top surface and a bottom surface;
and

a plurality of support blocks positioned between the bottom surface of the top support member and the top surface of the bottom support member, wherein the blocks are spaced apart a sufficient distance to receive a lifting member therebetween;

wherein the support blocks each have a generally oval cross-section defining a longitudinal axis of the support block; and

wherein the support blocks are formed from a composite material comprising at least one cellular material having particle sizes between about 0.05mm and about 4mm and at least one thermoplastic material, the concentration of the cellular material in the composite comprising between about 40 percent and about 60 percent such that the composite material is nailable.

65. The pallet according to claim 64, wherein the plurality of support blocks comprise nine support blocks, wherein a first group of three support blocks are positioned in a first row adjacent a first edge of the pallet, a second group of three support blocks are positioned in a second row across the center of the pallet, and a third group of three support blocks are positioned in a third row adjacent a second edge of the pallet.

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66. The pallet according to claim 65, wherein the first, second and third rows are positioned substantially parallel to each other and are aligned so that the support blocks guide a lifting member into a lifting position under the at least one top support member.

67. The pallet according to claim 65, wherein the top support member comprises at least three cross supports positioned generally parallel to each other, wherein the first, second, and third rows of support blocks support the three cross supports, and wherein the top support member further comprises a plate coupled to a top surface of the three cross supports and forming the top surface of the top support member.

68. The pallet according to claim 64, wherein the thermoplastic material is selected from the group consisting of polypropylene and polyethylene.

69. The pallet according to claim 68, wherein the polyethylene has a density between about 0.9 grams per cubic centimeter and about 0.98 grams per cubic centimeter.

70. The pallet according to claim 68, wherein the polyethylene is selected from the group consisting of a linear low density polyethylene, an ultra low density polyethylene, a low density polyethylene, a high density polyethylene, and an ultra high molecular weight polyethylene.

71. The pallet according to claim 68, wherein the polypropylene is formed from the group consisting of homopolymers and copolymers having densities between about 0.8 grams per cubic centimeter and about 0.99 grams per cubic centimeter.

72. The pallet according to claim 64, wherein the thermoplastic material is a thermosetting resin selected from the group consisting of polyesters, epoxies and vinyl esters.

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73. The pallet according to claim 64, wherein the cellular material has particle sizes between about 0.1mm and about 1mm.

74. The pallet according to claim 73, wherein the cellular material has particle sizes between about 0.177mm and about 0.42mm.

75. The pallet according to claim 64, wherein the cellular material is selected from the group consisting of wood, linen flax shives, bagasse from sugar cane, jute, rice husks, paper fiber, recycled paper, nut shells, cornhusks, and bamboo.

76. The pallet according to claim 64, wherein the shape of the generally oval support block is selected from the group consisting of an oval, a teardrop, an egg shape, an elongated hexagon, a diamond shape and a kite shape.

77. The pallet according to claim 64, wherein the generally oval support block comprises first and second substantially flat surfaces located on opposite ends of the longitudinal axis.

78. The pallet according to claim 77, wherein the support block comprises third and fourth substantially flat surfaces positioned on sides of the support block between the ends.